

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Addiese: COMMISSIONER FOR PATENTS P O Box 1450 Alexandria, Virginia 22313-1450 www.wepto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,269	11/01/2003	Keith Washington	GE,0001	2505
41963 7590 6420/2009 RAMIREZ & SMITH PO BOX 341179			EXAMINER	
			FEENEY, BRETT A	
AUSTIN, TX	/8734		ART UNIT	PAPER NUMBER
			3624	
			NOTIFICATION DATE	DELIVERY MODE
			04/20/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto@isrlaw.com pto@patent-counselors.com

Application No. Applicant(s) 10/699 269 WASHINGTON ET AL. Office Action Summary Examiner Art Unit BRETT FEENEY 4114 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 10 March 2009. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1 - 15. 25 - 41, 43 - 54, 78 - 82, 84 - 888, 93 - 97, 99 - 105, 111 - 118 and 120 - 121 is/are pending in the application. 4a) Of the above claim(s) _____ is/are withdrawn from consideration. 5) Claim(s) _____ is/are allowed. 6) X Claim(s) 1 - 15, 25 - 41, 43 - 54, 78 - 82, 84 - 888, 93 - 97, 99 - 105, 111 - 118 and 120 - 121 is/are rejected. 7) Claim(s) _____ is/are objected to. 8) Claim(s) _____ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abevance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s)

1) Notice of References Cited (PTO-892)

Paper No(s)/Mail Date

Information Disclosure Statement(s) (PTO/SB/08)

Notice of Draftsperson's Patent Drawing Review (PTO-948)

4) Interview Summary (PTO-413)

6) Other: __

Paper No(s)/Mail Date. ___

5) Notice of Informal Patent Application

Application/Control Number: 10/699,269 Page 2

Art Unit: 4114

DETAILED ACTION

Status of the Claims

- The following FINAL Office Action is in response to Applicant's submission received March 10, 2009.
- Claims 1 15, 25 41, 43 49, 78 82, 84 86, 93 94, 97, 99, 101 102,
 111, 115, 117 were amended. Claims 50 54, 87 88, 95 96, 100, 103 105, 112
 114, 116, 118 and 120 121 were previously presented. No claims were canceled or added
- 3. Claims 1-15, 25-41, 43-54, 78-82, 84-888, 93-97, 99-105, 111-118 and 120-121 are currently pending and have been examined.

Response to Amendments

4. Applicant's amendments to claims have overcome the previous rejection under §101. Further, amendments to the claims have overcome previous rejections under §112 except as to claims 38-40. Therefore, the Examiner has withdrawn the previous rejections under §101 and §112, except as noted for claims 38-40. The Examiner has maintained the rejection under §103. The Examiner has relied on the art already of record. Application/Control Number: 10/699,269 Page 3

Art Unit: 4114

Response to Arguments

5. Applicant's arguments received on March 10, 2009 have been fully considered but they are not persuasive. Referring to the previous Office action, Examiner has cited relevant portions of the references as a means to illustrate the systems as taught by the prior art. As a means of providing further clarification as to what is taught by the references used in the first Office action, Examiner has expanded the teachings for comprehensibility while maintaining the same grounds of rejection of the claims, except as noted above in the section labeled "Status of Claims." This information is intended to assist in illuminating the teachings of the references while providing evidence that

6. Applicant's arguments with respect to claims have been considered but are moot in view of the rejection. However, in an effort to elucidate the applicability of the selected prior art, the Examiner has provided a riposte to the Applicant's arguments.

establishes further support for the rejections of the claims.

- Applicants' arguments filed have been fully considered but are not found persuasive. Applicants argues
 - claim amendments are sufficient to distinguish the instant application over the prior art of record.
 - ii) A prima facie case of obviousness was not made.
 - iii) Examiner's taking of Official Notice.

In response to Applicant's argument independent that the claim amendment are sufficient to distinguish the instant application over the prior art of record, the Examiner

Art Unit: 4114

respectfully disagrees. The Examiner has substantially repeated the rejection already of record. Further, the Examiner has drawn Applicant's attention to additional portions of Huang and Heinrich to address new limitations added by the amendments.

In response to Applicant's argument a prima facie case of obviousness was not made, the Examiner respectfully disagrees. The Examiner would like to thank the Applicant for taking the time to provide the Examiner with an aide memoire regarding the legal standard for obviousness rejections under 35 U.S.C. 103, and for providing a clarification for the Examiner's benefit. In retort, the Examiner offers this augmentation the Applicant's condensed summary vis-à-vis the obligatory triad of criteria needed to establish a prima facie case of obviousness.

Applicant argues that a *prima facie* case of obviousness has apparently not been established. In response, the Examiner respectfully submits that obviousness is determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Hedges*, 783 F.2d 1038, 1039, 228 USPQ 685,686 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785,788 (Fed. Cir. 1984); and *In re Rinehart*, 531 F.2d 1048, 1052, 189 USPQ 143,147 (CCPA 1976). Using this standard, the Examiner respectfully submits that the burden of presenting a *prima facie* case of obviousness has successfully been satisfied, since evidence of corresponding claim elements in the prior art has been presented, and since the Examiner has expressly articulated the combinations and the motivations for combinations that fairly suggest

Art Unit: 4114

Applicant's claimed invention. Note, for example, the motivations explicitly stated in the paragraphs below.

Further, the Examiner would like to direct Applicant to factors to consider in determining the level of ordinary skill in the art. The person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. Factors that may be considered in determining the level of ordinary skill in the art may include; (A) "type of problems encountered in the art;" (B) "prior art solutions to those problems;" (C) "rapidity with which innovations are made;" (D) "sophistication of the technology; and" (E) "educational level of active workers in the field. In a given case, every factor may not be present, and one or more factors may predominate." In re-GPAC, 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121 (Fed. Cir. 1995); Custom Accessories, Inc. v. Jeffrey-Allan Industries, Inc., 807 F.2d 955, 962, 1 USPQ2d 1196, 1201 (Fed. Cir. 1986); Environmental Designs, Ltd. V. Union Oil Co., 713 F.2d 693, 696, 218 USPQ 865, 868 (Fed. Cir. 1983), "A person of ordinary skill in the art is also a person of ordinary creativity, not an automaton." KSR International Co. v. Teleflex Inc., 550 U.S. , 82 USPQ2d 1385, 1397 (2007). If the only facts of record pertaining to the level of skill in the art are found within the prior art of record, the court has held that an invention may be held to have been obvious without a specific finding of a particular level of skill where the prior art itself reflects an appropriate level [Emphasis Added]. Chore-Time Equipment, Inc. v. Cumberland Corp., 713 F.2d 774, 218 USPQ 673 (Fed. Cir. 1983). See also Okajima v. Bourdeau, 261 F.3d 1350, 1355, 59 USPQ2d 1795, 1797 (Fed. Cir. 2001).

Art Unit: 4114

In response to Applicant's arguments in respect to Examiner's taking of Official Notice, the response is inadequate to rebut the Examiner's taking of Official Notice and is hereinafter deemed admitted prior art. The Examiner would like to note the requirements for traversing official notice from MPEP § 2144.03:

To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. See 37 CFR 1.111(b). See also Chevenard, 139 F.2d at 713, 60 USPQ at 241 ("[I]n the absence of any demand by appellant for the examiner to produce authority for his statement, we will not consider this contention."). A general allegation that the claims define a patentable invention without any reference to the examiner's assertion of official notice would be inadequate. If applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. See 37 CFR 1.104(c)(2). See also Zurko, 258 F.3d at 1386, 59 USPQ2d at 1697 ("ITThe Board for examiner] must point to some concrete evidence in the record in support of these findings" to satisfy the substantial evidence test). If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2). If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate. If the traverse was inadequate, the examiner should include an explanation as to why it was inadequate. (MPEP § 2144.03(C))

To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art. See 37 CFR 1.111 (b).

If applicant does not traverse the examiner's assertion of official notice or applicant's traverse is not adequate, the examiner should clearly indicate in the

next Office action that the common knowledge or well-known in the art statement is taken to be admitted prior art because applicant either failed to traverse the examiner's assertion of official notice or that the traverse was inadequate [emphasis added].

Because Applicant has not specifically pointed out any errors in the Examiner's action, the officially noticed facts in the December 26, 2008 Office Action are deemed admitted prior art.

Claim Rejections - 35 USC § 112

- 8. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 9. Claims 38-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 38-40, the collecting process data is supposedly from "at least one manual-work-process tracking system" but no such system is found in claim 36.

Claim Rejections - 35 USC § 103

- 10 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Application/Control Number: 10/699,269 Page 8

Art Unit: 4114

11. This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

12. Claims 1 – 15, 25 – 41, 43 – 54, 78 – 82, 84 – 888, 93 – 97, 99 – 105, 111 – 118

and 120 – 121 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang

et al. (US 7,149,917) in view of Heinrich (US 2005/0114186).

Claim 1

Huang shows:

· collecting infrastructure performance data; collecting process data (see at least

error logs and software processes availability; Further, see also col. 3, lines 6-15;

Figs. 3, 4B, 5 and associated text.);

correlating the infrastructure performance data and the process data (see at least

FIG 1 and associated text in column 3, lines 1-5 and 26-30; "...outage data from

Art Unit: 4114

these measurements is then transferred to the NMS. The NMS then $\underline{\text{correlates}}$

Page 9

the outage data and calculates different outage statistics and values.");

• the correlating including determining associations for individual resources

between the infrastructure performance data and the process data (see at least

column 3, lines 26-30; "...stores outage data associated by with that outage

monitoring and measurement. The outage data can be accessed the NMS or

other tools for further correlation and calculation operations." Further, see at least

FIG 3 and associated text in column 3, lines 31-38; "A second tier includes router

manufacturer tools, third party tools and Network Management Systems (NMSs)

that either individually or in combination correlate and calculate outage values

using the outage data in router." The Exemplary embodiment taught by Huang

teaches correlating the router outage, (the individual resource), with that of

processing outages, (process data), and operations over the network

(infrastructure performance).

• the determining in reference to a common data object (Id. The common data

object is the router.);

the determining including identifying a particular resource by a common name in

the common data object (Id. Further, see at least TABLE 1.0: "Object Name"

"The object name is a string. For example, the object name can be a slot number

'3' controller name '3/0/0, serial interface name '03/0/0/2:0", or process ID..." A

process ID is one example of a common name that would be used to identify a

resource and data object.);

wherein data associated with the common name of each information technology
resource is aggregated between various data sources of the infrastructure
performance data and the process data (Id. The "outage event object type" is an
example of aggregated data that describes a plurality of failure events associated
with at least a resource failure, associated processes and operations failures,
recovery or failure associated data, antecedents to the event, and the like.).

Huang explicitly teaches "Fault Monitoring", "Root-Cause" analysis and "Layer-3 Polling" which collects and correlates outage data, monitors the status of objects to determine whether an event is impending or has occurred based on data discussed *ut supra*. The methodologies taught by Huang are used for risk assessment and mitigation, the resulting profile that incorporates events, risk and mitigation data would be, in effect, a risk profile. However, Huang does not explicitly disclose the step of generating a "risk profile" *per se*. In analogous art Heinrich discloses:

• generating a risk profile from the correlated data (see at least FIG 1 and associated text in paragraph 0029; noting the determination of overall risk in a system from data gathered from individual components and data can be from automated tools. Further, see at least paragraph 0038; Heinrich teaches generating a risk profile for "Component C". The risks for Component C are evaluated based at least in part on other components in the system, the relative performance of the total system, probability of an event occurrence, assessment of correlated risks for other components in the system, etc.).

Art Unit: 4114

It would have been obvious to a person having ordinary skill in the art at the time of invention to modify the outage measurement system of Huang with the risk calculation method and step of generating a risk profile taught by Heinrich in order to analyze the risk of outages to save costs associated with occurrence of events and

Page 11

failures.

Claim 2

Huang and Heinrich fail to explicitly disclose collecting infrastructure performance data is performed concurrently with collecting process data. However, the Examiner takes Official Notice that it is old and well known in the art to collect data concurrently with other data. Further, Applicant explicitly states in paragraph 0045 of the specification "Collecting infrastructure performance data and collecting process data may be performed in any order, or concurrently. For example, collecting infrastructure performance data may be performed before, during, or after collecting process data. The order that collecting and is performed is inconsequential [Emphasis Added], as long as the data is collected before subsequent actions of the method are performed." Therefore, it would have been obvious to a person having ordinary skill in the art at the time of invention to specify that the data collection methods of Huang collected different types of data concurrently.

Claims 3-7

The Examiner previously took Official Notice that it is old and well known to

collect data using data collection tools. Applicant has admitted that such tools are old

and well-known at pages 8-9 of the specification. Further, Applicant did not effectively

traverse the Examiner's Official Notice and therefore, the elements of claims 3-7 are

admitted prior art. Therefore, it would have been obvious to a person having ordinary

skill in the art at the time of invention to specify that Huang used particular data

collection tools for the purpose of using diversified collection strategies to more

accurately monitor the systems.

While the Official Notice of record is not withdrawn, the Examiner would also like

to note the following:

Claim 3

Huang/Heinrich teaches the limitations above. Furthermore, Huang shows:

collecting infrastructure performance data from at least one automated testing

tool, wherein the infrastructure performance data further comprises at least

server error logs (see at FIG 13 and associated text in column 12, lines 5-15;

"...generate crash information before the router is completely down. This soft

crash information can be produced with a time stamp of the crash event and

stored in the non-volatile memory.").

Claim 4

Huang/Heinrich teaches the limitations above. Furthermore, Huang shows:

collecting process data from at least one manual-work-process tracking system

(see at least column 10, lines 50-62; "...the outage monitoring manager may

identify all of the outage events with the same line card and report only one LC

failure event to the NMS. Thus, instead of sending many failures, the OMS only

sends a root cause notification." As stated by Applicant in paragraph 0042 of the

specification "process data includes data from a manual-work-process tracking

system, such as a change control system, a root-cause analysis system, and/or a

service-level control system." Therefore, the OMS that performs root-cause

analysis would be an example of a "manual-work-process tracking system".).

Claim 5

Huang/Heinrich teaches the limitations above. Furthermore, Huang shows:

· collecting process data from at least one change control system (see at least

FIGs 4 and 6 and associated text in column 8, lines 10-22; "...stored as a new

remote customer device in configuration table. This quickly identifies changes in

neighboring devices and starts monitoring customer equipment before the

updated static configuration information becomes available from the NMS

operator.").

Claim 6

Huang/Heinrich teaches the limitations above. Furthermore, Huang shows:

• collecting process data from at least one root-cause analysis system (ld. at

Claim 4).

Claim 7

Huang/Heinrich teaches the limitations above. Furthermore, Huang shows:

collecting process data from at least one service-level control system (see at

least FIG 11A and associated text in column 10, lines 5-12; "...Service Level

Agreement (SLA) guaranteeing the network equipment will be operational for

some percentage of time. FIG. 11A shows how the <u>AOT information</u> generated

______v

by the outage monitoring manager is used to determine if equipment is meeting

SLA agreements...").

Claims 8-10

The Examiner previously took Official Notice that it is old and well known to use

relevant data in analysis. Further, Applicant did not effectively traverse the Examiner's

Official Notice and therefore, the elements of claims 8-10 are admitted prior art.

Therefore, it would have been obvious to a person having ordinary skill in the art at the

time of invention to specify that Huang correlated particular data received for the

purpose of determining outages.

While the Official Notice of record is not withdrawn, the Examiner would also like

to note the following:

Claim 8

Huang/Heinrich teaches the limitations above. Furthermore, Huang shows:

• correlating application data, server data and database data from the infrastructure performance data and the process data (see at least TABLE 1.0. Further, see at least column 6, lines 30-33; "...depending on application requirements and router resource (memory and CPU) constraints." Memory data is equivalent to database data, CPU data would at least describe server data, and application requirements data is application data. While all types of data claimed are explicitly shown in the reference, the Examiner notes that application data, server data and database data are nonfunctional descriptive materials that do not serve to further limit the claims as presently written. The mere recitation of the type(s) of data does not modify the step of correlating the data without adding a functional interrelationship between the type(s) of data and the computing

Claim 9

process performed.

Huang/Heinrich teaches the limitations above. Furthermore, Huang shows:

correlating the infrastructure performance data and the process data for each of
the information technology resources, in reference to organizational control of the
resources (see at least Table 1 Huang teaches associating resource data with an
object: "Object Type History Represents different outage event object types. The
types are defined as follows: routerObject: Bow level failure or recovery.

rpslotObject: A route process slot failure or recovery. IcslotObject: A linecard slot failure or recovery. layer2InterfaceObject: A configured local interface failure or recovery." Further, see at least FIG 3 and associated text in column 3, lines 31-37; "...first tier uses the router to autonomously and automatically perform local outage monitoring, measuring and raw outage data storage. A second tier includes router manufacturer tools, third party tools and Network Management Systems (NMSs) that either individually or in combination correlate and calculate

 $\underline{\text{outage values}}$ using the outage data in router." Further, see at least Table 3.0,

noting event 1 is in reference to a serial control object.).

Claim 10

Huang/Heinrich teaches the limitations above. Furthermore, Huang discloses:

correlating at least one type of resource data selected from the group consisting
of application resource data, server resource data and database resource data,
in reference to a common data object (Id. at Claim 9 and Claim 10. The types of
data were addressed in Claim 9 and in reference to a common data object was

addressed in Claim 10.).

Claim 11

Huang/Heinrich teaches the limitations above. Furthermore, Huang discloses:

 a frequency of outages in the infrastructure performance data (see Table 2.0, "NAF" means number of accumulated failures) and a frequency of changes in the

process data (see Table 3.0, noting that an event is a change, such as interface shutdown), for each of the information technology resources.

• generating a risk score (see at least FIGs 8 & 9 and associated text in column 9, lines 33-40; "During this time duration, the outage monitoring manager automatically determines the duration of any failures for the monitored object. Time to Repair (TTR), Time Between Failure (TBF), and <u>Time To Failure</u> (TTF) are derived by the outage monitoring manager." The TTF is one risk score that uses the collected data to predict the <u>next event</u>. Further see at least column 9, lines 59-65; "The outage monitoring manager counts the <u>Number of Accumulated Failures</u> (NAFi) <u>during a measurement interval</u>. The AOTi and NAFi values are transferred to the NMS or higher level tool. The NMS, or a higher level tool, then calculates MTTRi=AOTi/NAFi=14/2=7 min." The MMTRi is another score that measures the risk of an outage.

Claim 12

Huang/Heinrich teaches the limitations above. Furthermore, Huang discloses:

the infrastructure performance data further comprises at least one measurement
of performance for an information technology resource (see Table 3.0, noting a
resource) and the process data further comprises at least one measurement of
activity for the information technology resource (id., noting event log), and
 Huang fails to explicitly disclose the steps disclosed for generating a risk score

per se. However, Heinrich discloses:

 generating a score for each of the measurements (see claim 1 step c), each measurement being multiplied by a weighting value associated with each

measurement, vielding a plurality of scores (see claim 1 step d); and summing

the plurality of scores, yielding a risk score (see claim 1 step e).

It would have been obvious to a person having ordinary skill in the art at the time

of invention to modify that outage data collection in Huang with the risk calculations of

Heinrich in order to quantify outage risk because quantifying outage risk allows

companies to systemically evaluate and rank mitigation strategies.

Claims 13 and 14

Huang/Heinrich teaches the limitations above. Huang fails to explicitly disclose,

and Heinrich discloses:

generating the score with a higher magnitude for an increasing frequency of

outages of the information technology resource as indicated in the infrastructure

performance data; and generating the score with a higher magnitude for an

increasing frequency of changes of the information technology resource as

indicated in the process data.

generating the score with a lower magnitude for a decreasing frequency of

outages of the information technology resource as indicated in the infrastructure

performance data: and generating the score with a lower magnitude for a

decreasing frequency of changes of the information technology resource as

indicated in the process data (see claim 1 step d, noting highest risk value is high, lowest risk value is low).

It would have been obvious to a person having ordinary skill in the art at the time of invention to combine the calculations of high scores meaning high risk and low scores meaning low risk in Heinrich with the data collection in Huang to assign risk scores to collected outage data that will be meaningful to a human audience.

Claim 15

Huang/Heinrich teaches the limitations above. Furthermore, Huang shows:

• a higher risk score is generated for information technology resources having an increasing frequency of outages (see at least FIGs 8 & 9 and associated text in column 9, lines 33-40; " During this time duration, the outage monitoring manager automatically determines the duration of any failures for the monitored object. Time to Repair (TTR), Time Between Failure (TBF), and Time To Failure (TTF) are derived by the outage monitoring manager." Further see at least column 9, lines 59-65; "The outage monitoring manager counts the Number of Accumulated Failures (NAFi) during a measurement interval. The AOTi and NAFi values are transferred to the NMS or higher level tool. The NMS, or a higher level tool, then calculates MTTRi=AOTi/NAFi=14/2=7 min." The higher MMTRi is a score that measures the risk of an outage represented at least in part by a high frequency of outages.

Art Unit: 4114

Claims 25 – 41, 43 – 54, 78 – 82, 84 – 88, 93 – 97, 99 – 105, 111 – 118 and 120 – 121 recite limitations not patentably distinct from similar claims above, and are rejected for similar reasons.

Claims 86-88, 93-97, 99-100, 101-105, 111-116, 117-118 &120-121

Huang discloses *a processor* (see at least FIG 1 and associated text in column 2 lines 36-45.) *that is operably coupled to a computer readable medium* (see at least FIG 3 and associated text in column 3, lines 38-48; "MIB".). However the Examiner notes that the claims only recite "the computer-readable medium having tangibly stored thereon a collector, correlator, generator and adder". A collector, correlator, generator and adder do not appear to be components of an apparatus nor components of a computer readable medium. Therefore, the Examiner has interpreted a collector, correlator, generator and adder to be software *per se* and hence non-patentable. Any further limitation of a collector, correlator, generator and adder recited in the claims has not been afforded any patentable weight. However, the Examiner also notes that the recited limitations of the apparatus claimed in the aforementioned claims are addressed in respect to the computer readable medium that executes the method recited in claims 1 – 15.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP

Art Unit: 4114

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Herring et al. (US 7,383,191) disclose a system that predicts outages using time domain correlation.
- Reynolds et al. (US 2003/0149657) disclose a system for measuring operational risk based on technology events.
- Vasudeva (US 2004/0267691) discloses a system for monitoring performance of a domain.
- Jensen et al. (US 6,389,331) disclose a system for monitoring performance of a facility management system.
- Chang et al. (US 2004/0054618) disclose a system for software and hardware risk analysis relating to downtime cost.

Art Unit: 4114

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRETT FEENEY whose telephone number is (571)270-5484. The examiner can normally be reached on M - R 7:30 - 6:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BRAD BAYAT whose telephone number is (571) 270-6704 can be reached on M - F 9:00 - 5:00 EST. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bradley B Bayat/ Supervisory Patent Examiner, Art Unit 3624